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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/671,095      | 09/25/2003  | Jong-Shing Guo       | 412557              | 6356             |

30954 7590 08/05/2005

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| EXAMINER |
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SASTRI, SATYA B

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| ART UNIT | PAPER NUMBER |
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1713

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/671,095

Applicant(s)

GUO ET AL.

Examiner

Satya B. Sastri

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-78 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 22, 23, 25, 26, 44, 46-51, 55, 56, 59, 61-65, 69, 70, 73 and 75-78 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-78 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/26/04</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 19-21,24,27-43,45,52-54,57,58,60,66-68,71,72,74.

### DETAILED ACTION

1. This office action is in response to application filed on September 25, 2003. *Claims 1-78* are now pending in the application.

2. It is noted that the application is incorrectly identified on pages 1 and 2 of the restriction response dated 6/1/05.

3. Applicant's election of species in the reply filed on 6/1/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

4. It is noted that applicant's response identifies the claims readable on the elected species incorrectly. The claims readable on the elected species are: *claims 1-18, 22, 23, 25, 26, 44, 46, 47, 48, 49, 50, 51, 55, 56, 59, 61, 62, 63, 64, 65, 69, 70, 73, 75, 76, 77 and 78*. Other claims are withdrawn from consideration.

5. Before the outstanding rejections are discussed, the following analysis of preamble to claims has been made:

- It is noted here that the preamble in composition claims recites a statement of intended use or purpose, and as a rule does not limit the scope of the claim, since the statements in

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preamble merely define the context in which the invention operates, *DeGeorge v.*

*Bernier*, 226 USPQ 758,761, n.3 (Fed.Cir. 1985)

- It is the Examiner's opinion that the preamble language does not provide the antecedent basis for terms in the body of the claim.
- It is the Examiner's opinion that the preamble language is not essential to understand limitations and/or terms in the claim body.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. ***Claim 11*** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Instant claim recites peel strength values without specifying a substrate. It is the examiner's position that the nature of the substrate would influence the values significantly.

***Claim Rejections - 35 USC § 102 and 103***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. *Claims 1-18, 22, 44, 49-51, 55, 56, 59, 64, 65, 69, 70, 73 and 78* are rejected under 35 U.S.C. 102(b) as anticipated by Kawabata et al. (US 5,620,796).

The prior art to Kawabata et al. discloses a method of an acrylic emulsion adhesive polymerization mixture comprising (a) 90-98% of C4-C14 alkyl (meth)acrylate and 2-10% of (b) acrylic acid, methacrylic acid and a polar monomer selected from the group of N-vinylpyrrolidone and N-vinylcaprolactam. Additionally, copolymerizable vinyl monomers such as methyl (meth)acrylate, ethyl (meth)acrylate etc. may be used in amounts of 0-40 parts based on 100 parts by wt. of monomeric mixture (column 3, lines 1-14). Furthermore, the composition may include a surfactant mixture of polymerizable anionic surfactant (I or II) and nonionic surfactant (column 2, lines 1-27). Examples of nonionic surfactants are disclosed as formula V while unsaturated non-ionic surfactants are disclosed as III and IV (column 8, lines 25-46). Crosslinking agents disclosed include polyfunctional aziridine compounds and may be used in amounts ranging from 0.1 to 1.5 parts by wt. relative to 100 parts by weight of the total monomer (column 4, lines 52-67, column 5, lines 1-2). For improved stability, the polymer emulsion is preferably adjusted to pH 6 to 8.5 (column 4, lines 38-40). Thus, *claims 1-9, 11, 12, 13, 14, 15, 16, 17, 18, 22, 44, 49, 50, 51, 55, 56, 59, 64, 65, 69, 70, 73, 78* are anticipated by prior art.

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With regard to *claim 10*, even though the prior art does not explicitly teach the peel strength value of the copolymer derived from instantly elected species, it is the examiners' position the copolymers would inherently possess the claimed peel strength given similar values for polymers disclosed in table 6.

11. *Claims 23, 25, 26* are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabata et al. (US 5,620,796) in view of Phan et al. (US 5,969,032).

The prior art to Kawabata et al. is adequately presented in paragraph 10 above and is incorporated herein by reference.

The difference between the prior art and the present invention is that the prior art does not teach the specific polymerizable surfactant in the adhesive composition as claimed instantly.

The primary reference discloses the use of polymerizable surfactants, albeit of a different nature. Secondary reference to Phan et al. disclose the use of an allyl amine salt of alkyl benzene sulfonate with allyl amine salt of dodecylbenzene sulfonate as the preferred species for polymerization of acrylic latexes (column 5, lines 14-29). The use of such surfactant allows lower levels of polymerizable surfactants to control the latex particle size and to stabilize the latex particles (abstract). In light of such benefits, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include with allyl amine salt of dodecylbenzene sulfonate as the preferred species of surfactant for polymerization of acrylic latexes of Kawabata et al. and thereby obtain the present invention.

12. *Claims 46-48, 61-63, 75-77* are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabata et al. (US 5,620,796) in view of Gutman et al. (US 5,508,107).

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The prior art to Kawabata et al. is adequately presented in paragraph 10 above and is incorporated herein by reference.

The difference between the prior art and the present invention is that the prior art does not teach the specific crosslinking agent in the adhesive composition as claimed instantly.

The primary reference discloses the use of crosslinking agents based on polyaziridine compounds. Secondary reference to Gutman et al. is in an analogous field of pressure sensitive adhesives and specifically teaches the use of crosslinking agents such as trimethylolpropane-tris( B-(N-aziridinyl)propionate. The use of such aziridines provides water-resistance necessary while maintaining the required balance of adhesion and removability (column 6, lines 17-30). In light of such benefits, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include trimethylolpropane-tris( B-(N-aziridinyl)propionate as the preferred species of crosslinking agent for acrylic latexes of Kawabata et al. and thereby obtain the present invention.

13. *Claims 1-4, 6, 10, 11-18, 44, 46-48, 49, 50, 51, 59, 61-63, 64, 65, 73, 75-78* are rejected under 35 U.S.C. 102(b) as anticipated by Narimatsu et al. (EP 0530729 A1).

Prior art teaches pressure sensitive adhesive obtained by emulsion-polymerizing a monomer mixture comprising alkyl (meth)acrylate monomer and 0.1-10 parts by wt. per 100 parts of monomer mixture, of carboxyl group-containing monomer (page 5). (Meth)acrylate monomers are disclosed in lines 4-9, page 5 while anionic monomers are listed in lines 10-11. Aziridine type crosslinking agents in amounts of 0.01 to 10 parts by wt. are disclosed (abstract, page 5, lines 49-51). Working example 1 on page 8 discloses a copolymer of 23 parts of



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methylethacrylate, 73 parts of 2ethylhexyl acrylate, 2 parts of glycidyl acrylate and 2 parts of acrylic acid (page 8, lines 13-16). Thus, *claims 1-4, 6, 10, 11-18, 44, 46-48, 49, 50, 51, 59, 61-63, 64, 65, 73, 75-78* read on prior art adhesive compositions.

14. *Claims 23, 25, 26* are rejected under 35 U.S.C. 103(a) as being unpatentable over Narimatsu et al. (EP 0530729 A1) in view of Phan et al. (US 5,969,032).

The prior art to Narimatsu et al. is adequately presented in paragraph 13 above and is incorporated herein by reference.

The difference between the prior art and the present invention is that the prior art does not teach the specific polymerizable surfactant in the adhesive composition as claimed instantly.

The primary reference discloses the use of, albeit of a different nature based on non-polymerizable kind. Secondary reference to Phan et al. disclose the use of an allyl amine salt of alkyl benzene sulfonate with allyl amine salt of dodecylbenzene sulfonate as the preferred species for polymerization of acrylic latexes (column 5, lines 14-29). The use of such surfactant allows lower levels of polymerizable surfactants to control the latex particle size and to stabilize the latex particles (abstract). In light of such benefits, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include with allyl amine salt of dodecylbenzene sulfonate as the preferred species of surfactant for polymerization of acrylic latexes of Narimatsu et al. and thereby obtain the present invention.

15. *Claims 1-16, 44, 49, 50, 59* are rejected under 35 U.S.C. 102(b) as being anticipated by JP 59,179,676 ('676, chemical abstract).

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Prior art to '626 concerns adhesive tapes comprising 80-99% (meth)acrylates with 1-20% unsaturated acids and crosslinking with an aziridinyl compound and neutralized by alkali. The specific teaching of 80 parts of 2-ethylhexyl acrylate, 20 parts of ethyl acrylate, 5 parts of acrylic acid and 5 parts of 2-hydroxyethyl acrylate (abstract). Thus, *claims 1-16, 44, 49, 50, 59* are anticipated by prior art.

***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 272 1112.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 272 1114.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
SATYA SASTRI

July 17, 2005

  
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